

ONE OF THE MOST EXCITING SECTIONS of the static exhibition at the S.B.A.C. show at Farnborough was the display of guided missiles. Marconi visitors were particularly interested in the English Electric Thunderbird, which was ordered by the Army last spring and has just been ordered for the R.A.F. as well.

The Chief Engineer of English Electric's Guided Weapons Division is L. H. Bedford. He is well known to Marconi people, for he was formerly our Chief Television Engineer and is one of the country's leading radar scientists.

The Thunderbird in its current form has been designed to deal with the threat of very high-flying bombers, manned or otherwise, as well as attackers at lower altitudes. To do this the missile is powered by a rocket motor which can operate with full efficiency at altitudes beyond the reach of aircraft or missiles powered by air-breathing engines. 'Wrap-

DEFENCE B

The English Electric Thunderbird, a radar-homing rocket missile, was on view at Farnborough. The complicated electronic systems of this guided weapon will be manufactured by our Company

ped round' the main missile are four booster rockets, linked to one another to form a single unit. They stay in place as long as their own power exceeds the drag of air on their noses, and then fall away. By this time the Thunderbird is running on its main rocket engine, and can continue to a great height. An indication of the height performance to be expected from the bombers of the future is given in the new Canberra height record of 70,000 feet.

HIGH POWER RADAR

ON PUBLIC VIEW for the first time at Farnborough was the SR1000, a new high power radar transmitter/receiver made by this Company.

The SR1000 incorporates many revolutionary new features, and is the closest approach yet made to the ideal of a packaged station. It provides in a single compact unit the answer to all modern long-range radar requirements, for early warning, air traffic control, air and coastal defence, meteorology and, in the larger naval vessels, air-to-surface warning systems.

The entire equipment is housed in a cabinet 87×73×40 inches and requires only connection to a three-phase A.C. supply. Although the cabinet is fully air-cooled, and the magnetron water-cooled and air-pressurised, no external ducts, water supplies or compressors are

needed. This compactness is achieved by a novel method of construction. Hinged on the front members of the cabinet at each side are double gate-type frames, of open construction. These hold all the electronic units and the associated power supplies. The frames open outwards to give full access to the main transmitter/receiver assemblies; when closed, they recess into the cabinet.

A further unusual feature is the comprehensive, built-in monitoring system. This gives an automatic and continuous check on the more important parameters such as peak power, noise factor and standing wave ratio, thus making the SR1000 as easy to service as possible. There are also special overload and phase protection circuits to safeguard the equipment, which can operate unattended with full remote control facilities.

THUNDERBIRD

